L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:317081 CAPLUS
DN 132:323090
ED Entered STN: 16 May 2000
TI Weather-, corrosion- and scratch-resistant acrylic clear coating compositions and their coated metal plates
IN Takeuchi, Yoshitomo; Koyama, Shigeru; Aoki, Susumu
PA Nippon Oil and Fats Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C09D127-16
ICS C23C022-30; C23C022-83; C23C028-00; C09D127-16; C09D133-06; C09D127-22; C09D127-18
CC 42-10 (Coatings, Inks, and Related Products)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2000136342	A2	20000516	JP 1998-310820	19981030 <--
PRAI JP 1998-310820		19981030		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2000136342	ICM	C09D127-16
	ICS	C23C022-30; C23C022-83; C23C028-00; C09D127-16; C09D133-06; C09D127-22; C09D127-18

AB Title coating composition comprises 100 parts polymer containing poly(vinylidene fluoride) and acrylic polymer, 3-30 parts hydroxy-containing acrylic-grafted fluoropolymer, 1-20 parts polytetrafluoroethylene powder, and a blocked polyisocyanate, wherein the NCO/OH equivalent ratio is 0.5-1. Thus, 100 parts Precolor 8000 Clear [poly(vinylidene fluoride) and acrylic polymer mixture] was mixed with Cefral Coat FG 710CX (acrylic-grafted fluoropolymer) 40, Hostaflon TF 9205 (PTFE powder) 10, Desmodur BL 4265 (blocked polyisocyanate) 3.84 and dibutyltin dilaurate 0.08 parts, coated onto a chromated stainless steel plate, and baked at 250° for 60 s, showing pencil hardness F-H, and good weather, corrosion and scratch resistance.
ST polyvinylidene acrylic clear coating weather resistance; acrylic grafted fluoropolymer polyurethane coating scratch resistance; polytetrafluoroethylene clear coating metal corrosion resistance
IT Polyurethanes, uses
Polyurethanes, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, fluorine-containing; weather-, corrosion- and scratch-resistant acrylic clear coating compns. and their coated metal plates)
IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyurethane-; weather-, corrosion- and scratch-resistant acrylic clear coating compns. and their coated metal plates)
IT Fluoropolymers, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(blends with acrylic polymers; weather-, corrosion- and scratch-resistant acrylic clear coating compns. and their coated metal plates)
IT Acrylic polymers, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(blends with poly(vinylidene fluoride); weather-, corrosion- and scratch-resistant acrylic clear coating compns. and their coated metal plates)

IT Acrylic polymers, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyurethane-, fluorine-containing; weather-, corrosion- and scratch-resistant acrylic clear coating compns. and their coated metal plates)

IT Metals, miscellaneous
RL: MSC (Miscellaneous)
(substrates; weather-, corrosion- and scratch-resistant acrylic clear coating compns. and their coated metal plates)

IT Coating materials
(transparent; weather-, corrosion- and scratch-resistant acrylic clear coating compns. and their coated metal plates)

IT Fluoropolymers, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(weather-, corrosion- and scratch-resistant acrylic clear coating compns. and their coated metal plates)

IT 24937-79-9, Poly(vinylidene fluoride)
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(blends with acrylic polymers; weather-, corrosion- and scratch-resistant acrylic clear coating compns. and their coated metal plates)

IT 12597-68-1, Stainless steel, miscellaneous
RL: MSC (Miscellaneous)
(substrate; weather-, corrosion- and scratch-resistant acrylic clear coating compns. and their coated metal plates)

IT 266690-94-2P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(weather-, corrosion- and scratch-resistant acrylic clear coating compns. and their coated metal plates)

IT 9002-84-0, Hostaflon TF 9205 174762-98-2, Precolor 8000
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(weather-, corrosion- and scratch-resistant acrylic clear coating compns. and their coated metal plates)

RN 24937-79-9
RN 12597-68-1
RN 266690-94-2P
RN 9002-84-0
RN 174762-98-2

L4 ANSWER 2 OF 3 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2000-425827 [37] WPIX
DNC C2000-129304
TI Clear coating composition, metal plate coated with it, and its manufacturing method.
DC A14 A82 G02 M13
PA (NIOF) NIPPON OILS & FATS CO LTD
CYC 1
PI JP 2000136342 A 20000516 (200037)* 8 C09D127-16 <--
ADT JP 2000136342 A JP 1998-310820 19981030
PRAI JP 1998-310820 19981030
IC ICM C09D127-16
ICS C23C022-30; C23C022-83; C23C028-00
ICI C09D133:06; C09D127:22; C09D127:18; C09D127-16; C09D127-16; C09D127-16
AB JP2000136342 A UPAB: 20000807
NOVELTY - A novel clear coating composition (P1) contains solvent-soluble hydroxyl group containing fluororesin (A) grafted with acrylic chains,

polytetrafluoroethylene powder (B) that has an average particle diameter of 2-20 micron, and blocked polyisocyanate compound (C) in a thermoplastic resin base coating composition (D).

DETAILED DESCRIPTION - More in detail, (D) contains polyvinylidene fluoride (D1) and acrylic resin (D2) as chief components and (C) can conduct curing reaction with (A). An (A)/(B)/((D1) plus (D2)) weight ratio is (3-30)/(1-20)/100 and a content of (C) is such an amount that an (NCO in (C))/(OH in (A)) equivalent ratio corresponds to (0.5-1.5)/1. Also claimed is as an independent claim a metal plate (P2) that has cured coating film formed from (P1) on the surface of a metal plate, on the surface of which a chromate layer containing 5-50 mg/m2 of chromium has been formed. Also claimed is as an independent claim a manufacturing method (M) of (P2) comprising: (1) chromate treatment process wherein chromate film containing 5-50 mg/m2 of chromium on the surface of a metal plate; and (2) coating and baking process wherein (P1) is coated on the chromate layer of the metal plate and is made to cure by baking at a temperature higher than or equal to 200 deg. C.

USE - (P1) and (M) are suitable for manufacturing (P2). (P2) is suitably used either as interior finish materials for vehicles and interior and exterior finish materials for buildings or for manufacturing electric appliances and indoor articles.

ADVANTAGE - (P1) can form clear coating films excellent in weather resistance, anticorrosiveness, resistance to abrasion, and resistance to scuffing without deterioration of beautiful appearance inherent in the substrate.

Dwg.0/0

FS CPI

FA AB

MC CPI: A04-E08; A04-E10B; A04-F01A1; A12-B01E; A12-B01F; A12-B04; A12-B08; G02-A02C; G02-A02D2; G02-A05B; G02-A05E; G02-A05F; M13-H05

L4 ANSWER 3 OF 3 JAPIO (C) 2005 JPO on STN

AN 2000-136342 JAPIO

TI CLEAR COATING COMPOSITION, METALLIC SHEET COATED THEREWITH, AND PRODUCTION THEREOF

IN TAKEUCHI YOSHITOMO; KOYAMA SHIGERU; AOKI SUSUMU

PA NOF CORP

PI **JP 2000136342** A 20000516 Heisei

AI JP 1998-310820 (JP10310820 Heisei) 19981030

PRAI JP 1998-310820 19981030

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2000

IC ICM C09D127-16

ICS C23C022-30; C23C022-83; C23C028-00

ICI C09D127-16, C09D133:06; C09D127-16, C09D127:22; C09D127-16, C09D127:18

AB PROBLEM TO BE SOLVED: To obtain a coating composition which can give a coating film excellent in weathering resistance, corrosion resistance, abrasion resistance, etc., by incorporating a component comprising a polyvinylidene fluoride and an acrylic resin with an OH-containing acrylic-monomer-grafted fluororesin, a blocked polyisocyanate compound capable of a curing reaction with the resin, and a polytetrafluoroethylene powder in a specified ratio.

SOLUTION: This composition is prepared by mixing 100 pts.weight, in total, polyvinylidene fluoride and an acrylic resin with 3-30 pts.weight solvent-soluble OH-containing acrylic-monomer-grafted fluororesin, and 1-20 pts.weight polytetrafluoroethylene powder and further mixing the resulting mixture with such an amount of a blocked polyisocyanate compound capable of a curing reaction with the OH-containing acrylic-monomer-grafted fluororesin as to give an NCO/OH equivalent ratio of 0.5-1.5. The composition is useful for coating a metallic sheet having been coated with a chromate-treated film and can impart a moderate hardness and lubricity to the coating film.